

Before the Flyover was completed, cars, trucks, and pedestrians would often be delayed for significant amounts of time waiting for trains to pass through the corridor. SeaTran is currently studying whether to keep the West Galer Street surface roadway open now that the Flyover is complete.

In 2001, SeaTran began the development of a grade separation project over the BNSF mainline tracks at **South Lander Street** in the greater Duwamish area. SeaTran is currently negotiating a consultant contract for a Type, Size and Location Study of a grade separation structure. Work on this contract will occur in 2002. Funding for eventual project construction has not been identified.

Various elements of the **Duwamish Intelligent Transportation System** (ITS) project were implemented in 2001, and more are on tap for the coming years. In July, SeaTran and the Manufacturing Industrial Council (MIC) co-sponsored a meeting to share with the trucking and freight communities how they could obtain traffic information on accidents, congestion, and detours using communication technologies and vehicle tracking systems. Other elements of the Duwamish ITS project, such as signal interconnects, installation of variable message signs, and use of closed-circuit television to provide live feeds of real-time traffic information to the City's traffic management center are moving forward in cooperation with the MIC and other industrial and freight organizations.

## Signals and Intelligent Transportation Systems

A broad range of diverse technologies, known collectively as intelligent transportation systems (ITS), can help address many of our transportation problems. SeaTran put together an ITS Master Plan in 1998 and is implementing various elements to provide better management tools for all modes, to improve safety, and to distribute enhanced information so travelers can make more informed decisions.

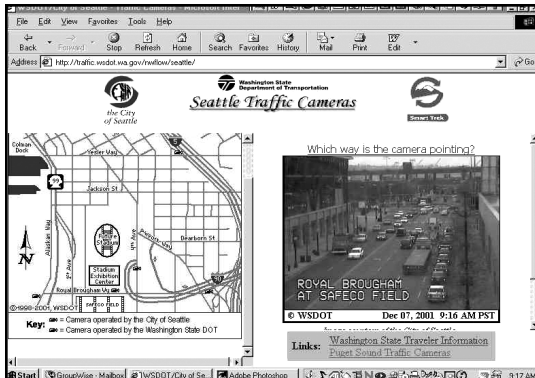
In 2001, SeaTran continued with an accelerated schedule of **optimizing traffic signals**. Of Seattle's 975 signalized intersections, almost 200 were optimized in 2001, an effort made possible in part through funding from the Mayor's Maintenance and Mobility Initiative. In addition to most of the University District, key corridors completed in 2001 included: Aurora Avenue North, Northgate Way, Greenwood Avenue N, Lake City Way NE, 24th Avenue NW, 15th Avenue NW, Elliott Avenue/15th Avenue W, California Avenue SW, and Beacon Avenue South. Updating signal timing benefits all users of the transportation network – moving autos, trucks, and transit more efficiently through corridors, while also providing more safe and reliable crossing gaps for bicyclists and pedestrians. Travel time improvements of 15–25 percent have been measured in some corridors. [TSP "Cars" Strategy: Optimize General Traffic Flows on Arterial Streets]

As part of an ongoing partnership with King County Metro, **transit signal priority** was installed at 14 intersections along Aurora Avenue North, from Winona Avenue N to N 145th Street. This technology allows the signal system to recognize approaching transit vehicles and, in turn, to give those vehicles more green time to get through intersections. Transit priority treatments had previously been installed along Rainier Avenue South and resulted in travel time improvements of 10-15 percent. SeaTran and Metro staff will work together to identify additional candidate corridors for transit signal priority installation in 2002 and beyond. [TSP Transit Strategy: Give Buses Green Lights at Intersections with Signal Preemption]

SeaTran installed **closed-circuit television** (CCTV) cameras at 14 locations along three major transportation corridors in Seattle: Aurora Avenue North, Northgate Way, and Mercer St. These cameras transmit real-time traffic information to



*Signal optimization improved travel times on Aurora Avenue North and other major corridors by up to 25 percent.*



*New cameras were installed at 14 locations and will soon provide real-time traffic information on the City's web site.*



*SeaTran is installing new green LED bulbs in all of Seattle's traffic signals.*

the City's signal engineers so they can view traffic conditions along these critical corridors and trouble-shoot any problems immediately. The images from these cameras will also be available to the public on the City's web site, complementing the Washington State Department of Transportation's CCTV system. The cameras allow people to make more informed travel decisions before heading out the door. [TSP Additional Strategies Strategy: Optimize the People-Moving Capacity of Existing Streets]

SeaTran embarked on a project to replace nearly 7,500 incandescent bulbs that light green traffic signals with new, energy efficient **Light Emitting Diodes (LEDs)**. LEDs are commonly found in household appliances, computers, toys, signs, and on vehicles. They use significantly less energy, are more durable, and last longer than standard incandescent bulbs. This switch will save the City more than 2.6 million kilowatt hours each year (enough energy to serve nearly 275 Seattle homes). SeaTran and Seattle City Light jointly funded the project. Since the LEDs last longer than incandescent bulbs, crews spend less time changing bulbs and more time on other projects that help keep the transportation system moving smoothly. Prior to switching to red LEDs three years ago, signal electricians used to respond to approximately 75 bulb outages every month. Since that switch, the number has been cut in half. [TSP Operations and Maintenance Strategy: Operate the Transportation System Effectively]

In September, the Washington Traffic Safety Commission awarded a handful of jurisdictions with demonstration projects to allow for **automated traffic enforcement**. The City of Seattle was one of those selected, and staff are now gearing up for a spring 2002 pilot project to install red light photo enforcement equipment at several intersections. The technology detects when cars are likely to run red lights and then automatically photographs the vehicles from the rear to provide evidence of a violation. After confirming the red light running, citations are mailed to the vehicle owners.

SeaTran will work with the selected vendor to locate the cameras at intersections that have shown historic patterns of high numbers of collisions, especially ones that occur at right angles (indicating a potential problem with red-light running). [TSP "Additional Strategies" Strategy: Use Traffic and Parking Enforcement and Education Programs to Improve Safety and Mobility]

## Bicycle Improvements

In November 2001, the magazine *Bicycling* ranked Seattle as the top bicycling city in the nation with a population of 500,000 to 1 million. The magazine highlighted Seattle's 30-year history of planning, investing in, and building a comprehensive bicycling infrastructure that has resulted in 28 miles of bike trails, 90.5 miles of signed bike routes, and 15.5 miles of bike lanes. The magazine also acknowledged local citizen and advocacy groups who have successfully promoted bicycling as a real transportation choice for Seattle residents.



In 2001, SeaTran improved and expanded Seattle's bicycling infrastructure in a variety of ways, including the construction of new bike lanes and the opening of new sections of bike trails. SeaTran also installed 550 skid-resistant, **reflective bicycle legends** on bike lanes and trails to more visibly show bicyclists, pedestrians, and drivers where bicycle trails and lanes are located. In conjunction with painting all lane markings on Seattle streets, all of Seattle's bike lanes were restriped.

*Two new sections of the Burke-Gilman Trail were opened in 2001.*

Construction of two long-awaited sections of the **Burke-Gilman Trail** (in Fremont, just west of the Fremont Bridge and in Ballard from 8th Avenue NW to 11th Avenue NW) was completed, and the trail sections opened to the public in July. Over the next two years, two more significant additions will be made to the Burke-Gilman Trail. The first section begins at the Ballard Locks and continues to NW 60th Street; it is scheduled for construction in 2002. The second section, which will be constructed in 2003, picks up at NW 60th Street and continues all the way to Golden Gardens Park. These sections of trail will include an 8-10 foot asphalt path, concrete sidewalks, and landscaping. [TSP Bicycling Strategy: Complete and Expand the City's Urban Trails System]